UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,567	05/03/2005	Kazunari Domen	TAN-351	4563

62479 7590 09/26/2008

HAHN & VOIGHT PLLC
1012 14TH STREET, NW
SUITE 620
WASHINGTON, DC 20005

EXAMINER	
SMITH, JENNIFER A	

ART UNIT	PAPER NUMBER
1793	

MAIL DATE	DELIVERY MODE
09/26/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Status of Application

Claims 1, 3, 5, 10, and 12 remain rejected.

The amendment has not been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 3, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al. (CSJ, 2002) in view of Takagaki et al. (2002).

Claims 5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida et al. (CSJ, 2002) in view of Takagaki et al. (2002) and further in view of Hara et al. (2002).

Response to Arguments

Applicant's arguments, filed on 09/16/2008, have been fully considered but they are not persuasive. The proposed amendment of claim 1 raises new issues that would require further consideration and/or search and does not place the application in better condition for allowance.

In regard to claim 1, Yoshida et al. teaches a metal oxide catalyst $HTiNbO_5$. The Ti/Nb atomic ratio (z) in this case is 1. "x" and "y" are both 1.

Takagaki et al. teaches a catalyst composition in Section 2 and 3, Results and conclusion. **The Ti/Nb atomic ratio (z) in this case is ranges from .833 to 5.**

Yoshida et al. does not explicitly describe a catalyst in which "z" has a value between 1.2 and 1.4 but metal oxides taught in the Takagaki reference have a Ti/Nb atomic ratio (z) range from .833 to 5 [See Section 2]. **In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976). See MPEP 2144.05 I.**

As set forth in the final rejection, it would have been obvious to one of skill in the art, at the time of Applicants invention, to modify this ratio because investigation of changes in catalytic activity associated with changes in atomic ratios has been

conducted in the past [See the Introduction of Takagaki]. This is a design parameter that can be set appropriately by a person skilled in the art, when necessary, and limiting those design parameters to optimum ranges involves no particular difficulty. Optimizing the preferred numerical ranges of x, y, and z, and restricting them to the ranges of the instant claims as in the Yoshida and Takagaki references demonstrates the normal inventive capacity of one skilled in the art. Takagaki characterized that the ratio of Ti and Nb indicates strong activity in reactions with esters. The effect of altering the ratio is taught in Paragraph 2 and while the Takagaki and Yoshida reference do not explicitly teach this numerical ratio, Takagaki teaches the structure $HTiNbO_5$ and altering the structure to investigate catalytic properties [See Introduction] within the claimed range. Therefore, one of skill in the art would recognize this ratio as a design characteristic in determining optimal catalytic activity.

Applicant argues the rejected claims 3, 5, 10, and 12 depend on, or contain the limitations, of claim 1 and the same argument over the rejection set forth to claim 1 is applied.

Conclusion

Claims 1, 3, 5, 10, and 12 remain rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER A. SMITH whose telephone number is

(571)270-3599. The examiner can normally be reached on Monday - Friday, 8:30am to 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorgengo can be reached on (571)272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jerry A Lorengo/

Supervisory Patent Examiner, Art Unit 1793

Jennifer Ann Smith
Art Unit 1793
September 23, 2008

JS